

## **II. Remarks**

### **A. Introduction.**

Reconsideration and allowance of the subject application are respectfully requested. Upon entry of this Amendment, Claims 12 and 14-18 will be pending in the subject application. Of the examined claims, Claim 12 is independent. By this paper, Claim 12 has been amended to clarify the amorphous overbased alkaline earth metal sulfonate and to include ranges for the amorphous overbased alkaline earth metal sulfonate and the friction modifier. Support for this amendment can be found, for example, at previous Claim 13, at page 3, line 17-page 4, line 1, and in the Examples. Claim 14 is also amended. Applicants note that Examples 6-8 utilize 1.0% of friction modifier and Examples 13, 15, and 16 utilize 0.5% of friction modifier. Claim 13 has been canceled. No new matter has been added.

### **B. Rejections under 35 U.S.C. §112.**

#### **i. 35 U.S.C. §112, first paragraph.**

Per the March 2, 2007 Office Action, independent Claim 12 and dependent Claims 14-18 stood rejected under 35 U.S.C. §112, first paragraph as allegedly failing to comply with the written description requirement in relation to the phrase, “a sedimentation rate of no more than about 0.005% over a 12 week period.” Applicants note that, in its Decision of June 8, 2009, the BPAI did not sustain this rejection. (BPAI Decision, page 8). In view of the current claim amendments, which delete this phrase, this rejection has, nevertheless, been rendered moot. Applicants request that the rejection be withdrawn by the Examiner.

#### **ii. 35 U.S.C. §112, second paragraph.**

Per the March 2, 2007 Office Action, dependent Claims 19 and 20 stood rejected under 35 U.S.C. §112, second paragraph as allegedly failing to distinctly claim the subject matter, which applicant regards as the invention. Claims 19 and 20 were canceled in a July 30, 2007 Amendment, thus rendering moot this rejection.

### **C. The claimed compositions demonstrate surprising and unexpected results.**

Independent Claim 12 and dependent Claims 14-18 stand rejected under 35 U.S.C. §103 as allegedly being unpatentable over U.S. Patent No. 5,652,201 to Papay (hereinafter “Papay”) in view of U.S. Patent No. 4,995,993 to Papke (hereinafter “Papke”), in further view of U.S. Patent No. 3,198,737 to Calhoun (hereinafter “Calhoun”), and U.S. Publication No. 2004/0180798 to Hartley (hereinafter “Hartley”). Applicants traverse this rejection in view of the amended claims

and in view of the arguments presented in this paper.

The Federal Circuit has stated that an obvious rejection may be overcome by showing “that the claimed invention exhibits some superior property or advantage that a person of ordinary skill in the relevant art would have found surprising or unexpected.” (See *In re Soni*, 34 USPQ2d 1684, 1687 (Fed. Cir. 1995) (“The basic principle behind this rule is straightforward -- that which would have been surprising to a person of ordinary skill in a particular art would not have been obvious.”)). Further, the Office must consider the rebuttal evidence when put forth by Applicants. (See *In re Sullivan*, 84 USPQ2d 1034, 1037 (Fed. Cir. 2007)). (See *Lindemann Maschinenfabrik GMBH v. American Hoist and Derrick Co.*, 730 F.2d 1452, 1462, 221 USPQ 481, 488 (Fed.Cir. 1984) (error to ignore evidence of unexpected results in deciding obviousness)). As shown in Tables 1-4 of the specification, such greater than expected results are clearly demonstrated by the claimed compositions. Accordingly, the claims are patentable over the cited references.

Claim 12 has been amended to recite a lubricant composition comprising a hydrotreated naphthenic oil, 10 percent of an amorphous overbased **calcium** sulfonate having a particle size of no more than about 30 nm, and, from 0.5 percent to 1.0 percent of at least one friction modifier selected from the group of friction modifiers. Examples 6-8, 13, 15, 16, and 23-27 demonstrate compositions comprising a hydrotreated naphthenic oil (Hyprene H100), 10% of an amorphous overbased calcium sulfonate having a particle size of no more than about 30 nm (Calcinate™ C400CLR), and from 0.5% to 1.0% of various friction modifiers, all of which are within the scope of Claim 12. Thus, the subject matter of Claim 12 is commensurate in scope with the compositions of Examples 6-8, 13, 15, 16, and 23-27.

As shown in Tables 1-4, Examples 6-8, 13, 15, 16, and 23-27, which utilize an **amorphous** overbased calcium sulfonate yielded very low sedimentation rates, e.g., no more than about 0.005% per week at 70°C for at least 12 weeks. In contrast, Examples 2-4, 9, 11, 12, and 17-21 utilize a **crystalline** overbased calcium sulfonate (Calcinate™ C300CS), and yielded significantly greater sedimentation rates, e.g., as high as 0.65%. In most cases, the sedimentation rate of the composition comprising **amorphous** overbased calcium sulfonate was at least an order of magnitude less than the corresponding composition comprising **crystalline** overbased calcium sulfonate. Such a significant decrease in sedimentation rates could not have been predicted based on the cited references. Thus, these results achieved by the claimed compositions

comprising *amorphous* overbased calcium sulfonate are clearly surprising and unexpected. Further, as indicated above, Claim 12 is commensurate in scope with the compositions of Examples 6-8, 13, 15, 16, and 23-27. As such, Claim 12 is patentable over the cited references. The rejection should be withdrawn.

**D. Dependent Claims.**


Claims 14-18 depend from Claim 12 and include all of the features thereof. For the same reasons independent Claim 12 is patentable, dependent Claims 14-18 are patentable as well.

**E. Conclusion**

In view of the above, it is believed that this application is in condition for allowance, and a Notice thereof is respectfully requested.

Applicants' undersigned attorney may be reached in our Washington, D.C. office by telephone at (202) 625-3620. All correspondence should continue to be directed to the address given below.

Respectfully submitted,



\_\_\_\_\_  
Attorney for Applicants  
Jeffrey T. Gendzwill  
Registration No. 55,201  
KATTEN MUCHIN ROSENMAN LLP

**Please continue to direct all correspondence to:**

Patent Administrator  
Chemtura Corporation  
199 Benson Road  
Middlebury, CT 06749  
USA